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24. The method of Claim 23, wherein said essential amino acids are selected from the group consisting of methionine, tryptophan, lysine, valine, phenylalanine, isoleucine, leucine, theronine and cysteine.

- 25. The method of Claim 23 wherein said amino acid changes comprise increasing the levels of methionine.
- 26. The method of Claim 23, wherein said amino acid changes are introduced into predetermined sites.
- 27. The method of Claim 26, wherein said predetermined sites are determined by secondary structure prediction or homology comparison.
- 28. The method of Claim 23, wherein said amino acid changes are introduced at random.
- 29. The method of Claim 28, wherein said amino acid changes are produced by mutagenic PCR, DNA shuffling, or phage display methodology.
- 30. The method of Claim 29, wherein correctly folded variants are confirmed by filter lift assay or ELISA.
- 31. The method of Claim 23, wherein said essential amino acids are increased to represent 5% of the total amino acid content of the protein.
- 32. The method of Claim 23, wherein said essential amino acids are increased to represent 10% of the total amino acid content of the protein.
 - 33. The method of Claim 23, wherein said protein is vegetative storage protein.

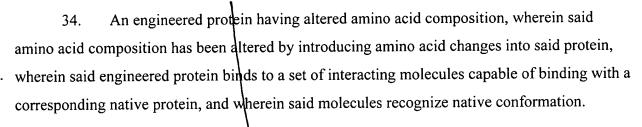
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- 35. The protein of claim 34, wherein said protein is selected from the group consisting of:
 - a) a protein having the amino acid sequence set forth in SEQ ID NO: 8;
 - b) a protein having the amino acid sequence set forth in SEQ ID

 NO: 9; and
 - c) a protein having the amino acid sequence set forth in SEQ ID NO:
- 36. The protein of claim 35, wherein said protein has the amino acid sequence set forth in SEQ ID NO: 8.
 - 37. The protein of Claim 34, wherein said interacting molecules are antibodies.
 - 38. The protein of Claim 37, wherein said antibodies are monoclonal antibodies.
- 39. The protein of Claim 34, wherein said amino acid changes increase the levels of at least one essential amino acid in the protein.
- 40. The protein of Claim 39, wherein said essential amino acids are selected from the group consisting of methionine, tryptophan, lysine, valine, phenylalanine, isolecuine, leucine, theronine and cysteine.

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41. The protein of Claim 40, wherein said essential amino acids are increased to represent 5% of the total amino acid content of the protein.

42. The protein of Claim 39, wherein said essential amino acids are increased to represent 10% of the total amino acid content of the protein.

- 43. The protein of claim 39, wherein said amino acid changes increase the level of methionine.
- 44. The protein of Claim 34, wherein said amino acid changes are introduced into predetermined sites.
- 45. The protein of Claim 44 wherein said predetermined sites are determined by secondary structure prediction or homology comparison.
- 46. The protein of Claim 34 wherein said amino acid changes are introduced at random.
- 47. The protein of Claim 46, wherein said amino acid changes are produced by mutagenic PCR, DNA shuffling, or phage display methodology.
 - 48. The protein of Claim 34, wherein said protein is vegetative storage protein.
- 49. An engineered vegetative storage protein having altered amino acid composition, wherein said amino acid composition has been altered by introducing amino acid changes into said protein, wherein said protein binds to a set of monoclonal antibodies capable of binding with a corresponding native vegetative storage protein, and wherein said antibodies recognize native conformation.

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